

**REMARKS**

**I. Introduction**

In response to the final Office Action dated December 1, 2005, Applicants have amended claims 1 and 3 to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

**II. Claim Rejections Under 35 U.S.C. § 103(a)**

Claims 1, 3, and 6 – 15 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the AAPA and U.S. Patent No. 6,660,659 to Kraus in view of U.S. Patent No. 6,265,327 to Kobayashi. Claims 2, 5, 16, and 17 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the AAPA and Kraus in view of Kobayashi and U.S. Patent No. 6,003,998 to Aronowitz. Claims 18 and 19 stand rejection under 35 U.S.C. § 103(a) as allegedly being unpatentable over the AAPA, Kraus, Kobayashi, Aronowitz, and U.S. Patent No. 6,890,811 to Hou. Applicants traverse these rejections for at least the following reasons.

Claim 1, as amended, recites a step of forming an oxide film having a thickness of not more than 3 nm using a solution including an oxidizer, on a surface of a silicon layer provided at least in part of a semiconductor substrate. Claim 3 recites a similar feature. At least this feature is not taught or suggest by the cited references, alone or in combination with each other.

The Examiner correctly acknowledges that Kraus fails to disclose forming an oxide film using a solution including an oxidizer, and relies on Kobayashi to overcome this deficiency. However, Kobayashi fails to disclose forming an oxide film having a thickness of not more than 3 nm, as recited in claims 1 and 3.

While Kobayashi appears to disclose that a chemical method for forming a silicon dioxide film in which the semiconductor is immersed in nitric acid, perchloric acid, or the like may be used as a method of forming the insulating film on the semiconductor substrate, Kobayashi neither discloses nor suggests the insulating film having a thickness of not more than 3 nm. Accordingly, Kobayashi does not make up for the deficiencies of the AAPA or Kraus.

Thus, at a minimum, none of the cited references teach or suggest forming an oxide film having a thickness of not more than 3 nm using a solution including an oxidizer, on a surface of a silicon layer provided at least in part of a semiconductor substrate. As it is well known that every claim element must be disclosed or suggested by the prior art in order to establish a *prima facie* case of obviousness (*see, e.g.*, MPEP § 2143.03) and as the cited prior art references fail to do so, Applicants respectfully submit that claims 1 and 3 are patentable over the cited references.

Claims 2 and 5 – 19 depend from one of claims 1 and 3. Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1 and 3 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also in condition for allowance.

**III. Conclusion**

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Michael E. Fogarty  
Registration No. 36,139

Please recognize our Customer No. 20277  
as our correspondence address.

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
Phone: 202.756.8000 MEF:dab  
Facsimile: 202.756.8087  
**Date: March 1, 2006**